

S/133/63/000/001/001/011
A054/A126

AUTHORS: Gol'dfarb, E. M., Goncharov, I. A., Sabel'nikov, A. G.,
Soroko, L. N., Tayts, N. Yu., Faynshteyn, I. G., Filonov, V. A.
(Deceased), Yaitskiy, A. K.

TITLE: Investigation of the solidification of large rectangular-section
ingots

PERIODICAL: Stal', no. 1, 1963, 22 - 25

TEXT: The heavy ingots used at the zavod "Zaporozhstal'" ("Zaporozhstal'" Plant) have a prismatic shape with various ratios of the side-dimensions. The solidification rates of such ingots have not yet been studied sufficiently. Tests were carried out to prove the accuracy of a new calculation method for this purpose, based on the geometrical addition of the solidification rates in various directions in these ingots. The width of the test ingots varied between 1,082 and 1,580 mm, their thickness between 610 and 750 mm and their height was 2,200 and 2,400 mm. Several measuring methods were used. In some tests the temperature was measured at the ingot-mold wall section by inserting chrome-nickel-aluminum

Card 1/3

Investigation of the solidification of...

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for cooling is 40 minutes shorter than required for their total solidification. The rimming steel ingots are, therefore, now being kept in the pits a longer time to prevent the roll shops from being supplied with ingots which are not fully solidified. There are 3 figures and 1 table.

ASSOCIATION: Dnepropetrovskiy metallurgicheskii institut i zavod "Zaporozhstal'"
(Dnepropetrovsk Metallurgical Institute and "Zaporozhstal'" Plant)

Card 3/3

S/133/63/000/001/008/011
A054/A126

Determination of the strip temperature...

group. The effects of the heat absorbed by the slab during heating, the cooling time, the cooling methods, the strip surface-to-volume ratio, the chemical composition of the steel, the strip thickness and the rolling rate on the strip temperature were studied. In the tests, stainless [1X18H9T (1Kh18N9T)] and carbon [CT.3кп (St.3kp)] grades were rolled to sizes varying between 3 x 1,030 and 6 x 1,232 mm. The temperature changes on the finishing stands, the effect of the rolling rate on the X stand and of strip thickness on the end temperature are shown in 8 graphs. At equal temperatures, strip thicknesses and rolling conditions, the end temperature of rolling for stainless steel strips is about 50 - 60°C higher than for carbon steel strips of the same dimensions. Increasing the rolling rate on the X stand by 10 m/min raises the end temperature of rolling for carbon steels by 2 - 3°C and for stainless steels by 5 - 6°C. By reference to the test results on the finishing stands and known equations used in temperature calculations the following empirical formulae were drawn up:

$$t = 815 + \frac{228(h-2)}{(h-2) + 2.57} \quad (3) \quad \text{for carbon steels and}$$

$$t = 920 + \frac{71(h-3)}{(h-3) + 0.76} \quad (4) \quad \text{for stainless steels,}$$

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S/133/63/000/001/010/011
A054/A126

AUTHORS: Natapov, B. S., Soroko, L. N., Barziy, V. K., Filonov, V. A. (Deceased), Gurskiy, G. L., Ioffe, M. M., Letchford, N. I., Yudovich, S. Z.

TITLE: Improving the stamping properties of 08 K0 (08Yu) grade sheet steel

PERIODICAL: Stal', no. 1, 1963, 84 - 86

TEXT: A new technology has been developed to produce low-carbon (0.04 - 0.08%) steel suitable for cold rolling of automobile sheets having good stamping properties and which do not tend to age. From the tests (carried out in co-operation with I. A. Goncharov, G. Mikhaylov, F. A. Ksenzuk, V. G. Antipenko, M. Ye. Kugayenko, L. Dobrovol'skiy, L. I. Odinet, N. P. Cherkashina, A. K. Yaitskiy, I. N. Avramenko, M. I. Lyakhova, R. I. Razumovskaya, S. M. Popov, A. L. Khudas ("Zaporozhstal"), N. P. Semperovich, V. Ye. Ol'shanetskiy, M. D. Voloshchuk, F. V. Sigalko (ZMI), K. M. Romanycheva, V. G. Kochevatov (GAZ)) it was concluded that the manganese content of the test grade should be lowered to 0.24 - 0.35%, while the quantity of other elements that increase the hardness

Card 1/2

CHEKMAREV, A.P., akademik; SAF'YAN, M.M., inzh.; KHOLODNYI, V.P., inzh.;
SOROKO, L.N., inzh.

Investigating the wear of working and backing rolls on
continuous hot rolling sheet mill. Met. i gornorud. prom.
no.5:23-28 S-0 '63. (MIRA 16:11)

1. Dnepropetrovskiy metallurgicheskiy institut (for Chekmarev,
Saf'yan, Kholodnyy).
2. Zavod "Zaporozhstal'" (for Soroko).
3. AN UkrSSR (for Chekmarev).

ACC NR: AT6012089

(N)

SOURCE CODE: UR/3177/65/021/000/0038/0052

AUTHOR: Chekmarev, A. P. (Academician AN UkrSSR); Saf'yan, M. M. (Professor);
Meleshko, V. I. (Candidate of technical sciences); Prokof'yev, V. I. (Candidate of technical
sciences); Avramenko, I. N. (Engineer); Dodoka, V. G. (Engineer); Ksenzuk, F. A. (Engineer);
Kudin, D. P. (Engineer); Lola, V. N. (Engineer); Movshovich, V. S. (Engineer); Pavlishchev,
V. D. (Engineer); Soroko, L. N. (Engineer); Sukhobrus, Ye. P. (Engineer); Knolodnyy, V. P.
(Engineer); Yudin, M. I. (Engineer)

ORG: none

TITLE: Improvements in the techniques of production of Kh18Ni0T cold-rolled wide-strip
steel at the Zaporozhstal' Plant

SOURCE: Dnepropetrovsk. Institut chernoy metallurgii. Trudy, v. 21, 1965. Prokatnoye
proizvodstvo (Welding production), 38-52

TOPIC TAGS: stainless steel, bright stock lubricant, metal rolling, sheet metal, industrial
plant / Kh18Ni0T stainless steel, P-28 bright stock lubricant

ABSTRACT: On increasing to 11.8 tons from the previous 10.3 tons the weight of the ingots.

Cord 1/2

L 41274-66

ACC NR: AT6012089

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of Kh18N10T stainless steel used to produce 1000 mm wide sheets, the Zaporozhstal' Plant found it possible to reduce by 40-50 kg/mm² the wastage of metal during slabbing. Other innovations introduced in recent years at this plant include: fettling, flame scarfing and planing of ingot surfaces so as to eliminate defects of metallurgical origin prior to slabbing. These measures, along with improvements in the ingot reheating regime, have made it possible to increase the productivity of slabbing mills by 15-20%. The ingots themselves are cone-shaped in order to optimize the conditions of crystallization of the molten metal. After trimming and heating to 1050-1300°C the slabs proceed to a continuous strip mill where they are rolled into 1000 mm wide strip. By introducing the cold rolling of this strip in a reversible four-high mill with a reduction of 85% and by abandoning the practice of intermediate quenching during the production of 0.8-1.4 mm thick sheets rolled from 3.0 mm thick stock, using P-28 bright stock (highly viscous mineral oil) as the lubricant, using highly polished rolls, and increasing the convexity of the rolls to offset the increase in roll pressure, and thus streamlining the rolling techniques to an extent at which it became possible to roll in 13 passes 0.8 mm thick strip without overloading the rolls and main drive, the Zaporozhstal' Plant has found it possible to increase by 81% the productivity of its sheet mill and by 180%, the productivity of its reversible cold-rolling mill. The annual savings produced by these innovations amount to: for the slabbing-mill shop, 162,000 rubles; for the sheet-mill shop, 91,000 rubles; for the cold rolling shop, 719,000 rubles. Orig. art. has: 3 figures, 9 tables.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 015

Card 2/2 *LC*

L 42922-66 EWT(m)/ENP(t)/EIT IJP(c) JD/JT
ACC NR: AP6029056 SOURCE CODE: UR/0413/66/000/014/0082/0082

INVENTOR: Averchenko, P. A.; Alekseyenko, M. F.; Babakov, A. A.; Babitskaya, A. N.;
Batrakov, V. P.; Bondarenko, A. L.; Gabuyev, G. Kh.; Yel'tsov, K. S.; Kulygin, G. V.;
Loia, V. N.; Orekhov, G. N.; Pridantsev, M. V.; Sklyarov, P. I.; Smolyakov, V. F.;
Soroko, L. N.; Solov'yev, L. L.; Frantsov, V. P.; Shamil', Yu. P.; Moshkevich, Ye. I.;
Natanov, B. S. 53
13

ORG: none

TITLE: Stainless steel. Class 40, No. 183947.

SOURCE: Izobret prom obraz' tov. zn, no. 14, 1966, 82

TOPIC TAGS: stainless steel, chromium titanium steel, molybdenum containing steel,
nitrogen containing steel, titanium containing steel 16

ABSTRACT: This Author Certificate introduces a stainless steel containing
chromium, molybdenum, and nitrogen. In order to improve weldability, the steel has
the following composition: 0.08% C, up to 0.8% Mn, up to 0.8% Si, 15-18% Cr,
0.2-0.6% Mo, 0.04-0.15 N, 0.4-1.2% Ti, up to 0.035 S, and up to 0.030 P. [WW]

SUB CODE: 11/ SUBM DATE: 30Jan65/ARA PRESS: 2213

UDC: 669.14.018.8: 669.15'26-194

Card 1/1 *ldh*

SOROKO, M. I.

"Some Problems of Experimental Study of Locomotive Steam Engines." Min. Railroad Transportation [?], USSR, Leningrad Order of Lenin Inst. of Engineers of Railroad Transport imeni Academician V. N. Obratzov, (Leningrad), 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

S/262/62/000/012/009/013
I007/1207

AUTHOR: Yevenko, V. I., Soroko, M. I., Apanovich, N. G.

TITLE: Methods of increasing the economic efficiency of free-piston gas turbine units under partial load

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no. 12, 1962, 91, abstract 42.12.607. "Collection Tr. Bryansk. in-t transp. mashinostr.", no. 20, 1961, 67-85

TEXT: An economically efficient and simple method to widen the common range of operation of a combined gas turbine and free piston gas-generator plant is to separate the inlet of gas from each free piston unit to a definite nozzle group of the regulating stage of the turbine. When several free piston units are feeding a single intake manifold, the common range of operation of the free piston unit and the gas turbine can be widened by varying (in steps) the dead clearances (space) in the compressor cylinders of the free piston unit through the connection of additional space. Such a method has a definite thermodynamical advantage as compared with the recirculation of the scavenging air. The performance of the whole plant may also be improved by varying the flow section in the nozzles of the turbine stages.

[Abstracter's note: Complete translation.]

Card 1/1

KAMAYEV, A.A., prof., doktor tekhn.nauk; SOROKO, M.I., kand.tekhn.nauk

Effect of the force of friction in body supports on the curve-in
of the vehicle. Trudy BITM no.21:65-75 '64.

(MIRA 18:8)

SOROKO, M.I., kand. tekhn. nauk

Effect of the moment of friction in body supports on the movement
of the vehicle coming out of a curve. Trudy BITM no.21:101-105
'64. (MIRA 18:8)

L 58810-65 EWT(m)/EPF(c)/EPR/ENP(t)/ENP(b) Pr-4/Ps-4 IJP(c) JD
 ACCESSION NR: AP5015691 UR/0076/65/039/006/1403/1407 29
 542.48 + 541.123.3 26
 AUTHOR: Shneyerson, A.L.; Miniovich, M.A.; Filippova, Zh. M.; Soroko, S.N.; Platonov, P.A. B

TITLE: Liquid-vapor equilibrium in the systems nitric acid-water-magnesium nitrate, nitric acid-water-calcium nitrate, and nitric acid-water-magnesium nitrate-calcium nitrate 27

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 6, 1965, 1403-1407

TOPIC TAGS: magnesium nitrate, calcium nitrate, nitric acid, phase equilibrium, azeotropic mixture

ABSTRACT: The presence of magnesium nitrate, calcium nitrate or their mixtures in the $\text{HNO}_3\text{-H}_2\text{O}$ system sharply increases the HNO_3 content in the vapor phase and displaces its azeotropic point, the effect of magnesium nitrate being more pronounced. For example, the equilibrium concentration of HNO_3 in the vapor phase over pure 20% HNO_3 is about 1.5%. However, when 60% $\text{Ca}(\text{NO}_3)_2$ or $\text{Mg}(\text{NO}_3)_2$ is present, the HNO_3 concentration in the vapor phase increases to 53.5 and 82.3%, respectively. The

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L 58810-65

ACCESSION NR: AP5015691

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effect of the nitrates on the azeotropic point of nitric acid is approximately additive. Hence, in order to obtain the equilibrium vapor compositions for the system $\text{HNO}_3\text{-H}_2\text{O-Ca(NO}_3)_2\text{-Mg(NO}_3)_2$, it is sufficient to have data for the ternary systems $\text{HNO}_3\text{-H}_2\text{O-Ca(NO}_3)_2$ and $\text{HNO}_3\text{-H}_2\text{O-Mg(NO}_3)_2$ (see Figs. 1 and 2 of the Enclosure), as for example when calculations are made for the rectification of nitric acid in the presence of mixed impurities consisting of magnesium and calcium nitrate. "O.A. Manayenkova and K.V. Artoshchenko participated in the experimental work." Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Gosudarstvennyy institut azotnoy promyshlennosti (State Institute of the Nitrogen Industry)

SUBMITTED: 13Feb64

ENCL: 02

SUB CODE: IC

NO REF SOV: 003

OTHER: 004

Card 2/4

SOROKO, T. I.

Dissertation: "Kinetic Investigation of Initiated Auto-oxidation In Some Aldylbenzenes."
Cand Chem Sci, Acad Sci Belorussian SSR, Department of Physicomathematical and
Technical Sciences, Minsk, 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 5, Mar 54)

SO: SUM 243, 19 Oct 54

SOROKO, T. I.

USSR/Organic Chemistry - Naturally Occurring Substances and Their Synthetic Analogs,
E-

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 103⁴

Author: Yerofeyev, B. V., Mitskevich, N. I., and Soroko, T. I.

Institution: Academy of Sciences Belorussian SSR

Title: Conjugated Decarboxylation During the Autoxidation of Dehydroabiatic
Acid

Original
Periodical: Izv. AN BSSR, 1955, No 2, 131-135 (published in Russian); Vestsi AN
BSSR, 1955, No 2, 124-128 (published in Belorussian)

Abstract: It has been established that the autoxidation of dehydroabiatic acid
(I) is accompanied by decarboxylation. Heating colophony (3 hours at
340°) yields the "pyroacid," which is sulfonated; acid hydrolysis of
the sulfodehydroabiatic acid yields I, mp 172-173.5° (from alcohol)
 $[\alpha]_D^{25} + 63.77^\circ$. Autoxidation of I is carried out in naphthalene at
85 and 95° in the presence of Co-acetate (II) (one percent by weight
based on I). The apparatus described previously (Referat Zhur - Khimiya,

Card 1/2

Soroko, T.I.

USSR/Physical Chemistry - Kinetics, Combustion, Explosions,
Topochemistry, Catalysis.

B-9

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 441

Author : N.I. Mitskevich, T.I. Soroko.

Inst : Academy of Sciences of White Russian SSR, Institute of
Chemistry.

Title : Kinetics of Initiated Auto-Oxidation of Dehydroabiatic
Acid.

Orig Pub : Sb. nauchn. rabot. In-t khimii AN BSSR, 1956, vyp. 5(1),
174-187

Abstract : Acetates of Mn, Co, Ni, Cu and Pb and butyrate, stearate
and dehydroabietate of Co were used at 85° as initiators
of the auto-oxidation of the dehydroabiatic acid (I) dis-
solved in naphthalene. The reaction kinetics was studied
in a system static in reference to O₂ absorption. Under

Card 1/2

USSR/Physical Chemistry - Kinetics, Combustion, Explosions,
Topochemistry, Catalysis.

B-9

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 441

these conditions a non-initiated reaction does not proceed. The initiator efficiency does not depend on the anion nature, salts of Co prove to be the most active. An increase of the initiator amount above 1% does not result in any further increase of the oxidation speed. The presence of hydrocarbons and CO₂ in the reaction products indicates that decarboxylation of I takes place together with oxidation.

Card 2/2

Conjugate Decarboxylation of the Autooxidation of Iso- 20-1-28/54
propylbenzene in a Mixture with Fatty Acids.

speed of isopropylbenzene is about four times higher in the presence of an acid than without an acid. The initial speed was highest, then it decreased. Tab.1 shows the influence of the acid concentration on this speed. Addition of 1,04 % of isobutyric acid increases the speed more than four-fold. Further additions of acid virtually do not change the amount of oxygen absorbed at all. However, they bring about an increase in the developing CO_2 more than six-fold, at a practically unchanged amount of absorbed oxygen. The test results of the oxydation of isopropylbenzene in a mixture with radioactive acetic acid (labeled on the carboxyl) confirms that the escaping CO_2 , at least partly, develops at the expense of the carboxyl group of the added acid. The tests with oxydation of acetic, butyric, isobutyric and stearic acids under analogous conditions but without isopropylbenzene showed that neither an absorption of oxygen nor a formation of CO_2 takes place. The small amount of CO_2 escaping on this occasion probably represents a process which is connected with the autooxydation of these acids. A scheme is proposed for the conjugate decarboxylation process of organic acids with a simultaneous autooxydation of hydrocarbons. It consists of: 1. formation of the radical of isopropylbenzene peroxide, 2. interaction of this radical with the organic acid under formation of a acid radical, 3. the decarboxylation as such, 4. separation of a hydrogen atom from isopropylbenzene in the tertiary group due to interaction

Card 2/3

SOROKO, T. I., MITSKEVICH, N. I., and YEROFEEV, B. V.

"Conjugated Decarboxylation in the Autoxidation of Abietic Acid."

Sbornik nauchnykh rabot, vyp. 6, (Collection of Scientific Works of the Inst. of Chemistry, Belorussian SSR, Acad. Sci., No. 6,) Minsk, Izd-vo AN Belorusskoy SSR, 1958, 271pp.

MITSKEVICH, N.I.; SOROKO, T.I.; YEROFEEV, B.V.

Conjugated decarboxylation in auto-oxidation of abietic acid. Sbor.
nauch. rab. Inst. khim. AN BSSR no.6:66-82 '58. (MIRA 11:11)
(Oxidation) (Abietic acid)

MITSKEVICH, N.I.; SOROKO, T.I.; SHCHERBAK, L.I.

Autoxidation of mixtures of isopropylbenzene with cyclohexene and
dipentene. Sbor. nauch. rab. Inst. fiz.-org. khim. AN BSSR no. 7:23-
32 '59. (MIRA 14:4)

(Benzene) (Cyclohexene) (Dipentene)

MITSKEVICH, N.I.; SOROKO, T.I.; KONOPLYANNIK, M.M.

Decarboxylation associated with the autoxidation of liquid paraffin hydrocarbons. Sbor. nauch. rab. Inst. fiz.-org. khim. AN BSSR no.8:175-185 '60. (MIRA 14:3)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Hydrocarbons) (Carboxyl group) (Carbonyl group)

SOROKO, T.I.

Autoxidation of liquid paraffin hydrocarbons with additions of fatty acids. Shor. nauch. rab. Inst. fiz.-org. khim. AN BSSR no.8-186-193 '60. (MIRA 14:3)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Acids, Fatty) (Oxidation) (Paraffins)

s/080/60/033/04/26/045

AUTHORS: Yerofeyev, B.V., Soroko, T.I.

TITLE: On the Chemism of the Initiation of Self-Oxidation of Cumene¹ by Manganese Salts

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 4, pp 903 - 910

TEXT: The self-oxidation of cumene in the presence of manganese salts was studied with a view to elucidating the initiating action of these salts. Cumene used in the experiments was synthesized from isopropyl and benzene chloride and had the following physico-chemical constants: boiling point 151.0 - 153.0°C, n_D^{20} 1.4929, d_4^{20} 0.86255. It was shown that at 95°C and an oxygen pressure of 590 mm Hg the oxidation of cumene does not take place, and proceeds very slowly in the presence of manganese acetate. The self-oxidation rate increases, however, in the case of the purification of cumene by means of sodium metal. After boiling cumene for 3 hours over sodium metal with subsequent distillation the reaction rate increases 60 times. Kolmakov and Razuvayev [Ref 14] found that the induction period decreases as a result of additions of cumene hydroperoxide or manganese resinate as initiator. The induction period depends on the purification of cumene and the type of initiator. In the presence of manganese

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S/080/60/033/04/26/045

On the Chemism of the Initiation of Self-Oxidation of Cumene by Manganese Salts

butyrate it is completely absent. The initiator changes during the process of self-oxidation, losing its initiating capacity. At the same time the manganese content in it increases. It has been pointed out that the experimental facts observed do not agree with the initiation theory of several authors, which includes the alternating oxidation and reduction of the initiator by cumene hydroperoxide. The results agree, however, with the initiation theory, according to which the formation of free radicals takes place during reduction of the initiator by hydrocarbon. There are: 7 sets of graphs, 1 diagram and 24 references, 12 of which are Soviet, 7 English, 3 German and 2 American.

SUBMITTED: September 17, 1959

Card 2/2

YEROFEEV, B.V.; SOROKO, T.I. (Minsk)

New type of dependence of the autooxidation rate of cumene on
the initiator concentration. Zhur.fiz.khim. 36 no.8:1717-1722
Ag '62. (MIRA 15:8)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Cumene) (Oxidation)

207/5663

PLANNING BOOK NO.

Академия наук СССР. Институт химической физики

Окисление углеводородов в жидкой фазе: обзорный отчет (Oxidation of hydrocarbons in the liquid phase: Collection of Articles) Moscow, Izdatel' AN SSSR, 1979. 334 p. Иллюстраций 15, 100 копий приложено.

М.: И. М. Бауман, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: E. M. Izrael, Tech. Ed.: I. P. Kuz'min.

РЕЗЮМЕ: This collection of articles is intended for chemists interested in hydrocarbon oxidation reactions, particularly for those specializing in petroleum fuels.

СОДЕРЖАНИЕ: This collection of 35 articles represents the results of investigations over a period of several years on problems of hydrocarbon oxidation. The authors present their own theoretical and experimental data and also draw from current literature. No personalities are mentioned. References accompany most of the articles.

Содержание: В сборнике представлены результаты исследований, проведенных в течение нескольких лет по проблемам окисления углеводородов. Авторы представляют свои собственные теоретические и экспериментальные данные, а также делают ссылки на литературу. Не упоминаются личности. Ссылки на литературу сопровождаются именами авторов.

207
The kinetics of the thermal decomposition of the hydroperoxides of isopropylbenzene and of n-butylbenzene, with and without solvents, is investigated at 100-130°C. It is shown that the thermal decomposition reactions of n-butylbenzene and isopropylbenzene hydroperoxides differ greatly.

212
Kocher, M.Y., A.I. Kuz'min, and M.A. Kozlov [L'vovskiy gosudarstvennyy universitet imeni Iвана Франка (Lvov State University imeni Ivan Franko)]. Oxidation of tertiary hydrocarbons in emulsions by molecular oxygen

The rate of hydrocarbon oxidation by gaseous oxygen in alkaline emulsions of isopropylbenzene was investigated. The presence of emulsifiers increases the rate of oxidation as a result of increased oxygen, hydrogen peroxide and hydrogen peroxide solubility in the aqueous phase. Solid bentonite emulsifiers were used. Isopropylbenzene is more easily oxidized than 1,1-diphenylethane.

220
Kuz'min, M.A. [Moscow State University imeni M.V. Lomonosov]. Oxidation of aromatic hydrocarbons by organic peroxides

The author explains the link between the structure of aromatic and naphthalene hydrocarbons and their stability with respect to oxygen at high temperatures (175-205°C).

227
Kuz'min, M.A., E.A. Grigor'yeva, M.Y. Artyukhin, and M.A. Kuz'min [L'vovskiy gosudarstvennyy universitet imeni Iвана Франка (Lvov State University imeni Ivan Franko)]. Synthesis of allylated hydroperoxides of the 1, 2-diphenylbutane series

238
Kuz'min, M.A., and M.A. Kozlov [Institut khimii AN SSSR (Institute of Chemistry, Academy of Sciences USSR)]. Conjugate decarboxylation in the autooxidation of resin acids

The authors have shown that this phenomenon is characteristic of the oxidation process of all resin acids. The results obtained are particularly important for understanding the chemistry of resin acid transformations.

243
Kuz'min, M.A. [Moscow State University imeni M.V. Lomonosov]. Kinetics of the reaction of organic peroxides with the iodine

The author considers from the kinetics of the separation of iodine by a given peroxide that it is possible to determine the peroxide quantitatively and qualitatively and to identify its class.

249
Goncharov, L.K. [Institute of Chemical Physics, Academy of Sciences USSR]. Quantitative methods of determining fatty acids of normal structure

The author has used paper chromatography to separate mixtures of hydrocarbons up to C₂₀ and their derivatives, and the distillation method to separate methyl esters of acids above C₂₅ with a carrier.

255
Kuz'min, M.A. [Corresponding Member, Academy of Sciences USSR]. [Kuz'min, M.A. (Moscow State University imeni M.V. Lomonosov)]. Kinetics of the reaction of organic peroxides with the iodine

The author considers from the kinetics of the separation of iodine by a given peroxide that it is possible to determine the peroxide quantitatively and qualitatively and to identify its class.

The author discusses the composition of mixtures of synthetic fatty acids, data on neutral oxygen-containing compounds of "second-generation" of the paraffin oxidation product, and results of experiments on the thermal stability of these compounds.

SOROKO, V. P.

"Work of the Institute (Gipronikel') in the Field of Building Vibration Loading Machinery."

report presented at a coordination Conference on Problems of Design and Testing of Vibration type machinery, Mining Institute, Acad. Sci. USSR, 9-10 July 1958. (Izv. AN SSSR, Otdel Tekh Nauk 1958, No. 11, p. 152)

Affil. Gipronikel'

KOZHEVNIKOV, V.A.; SOROKO, V.I.

Two-cascade direct-current amplifier with high amplification.
Biofizika 1 no.1:95-97 '56. (MLRA 9:12)

1. Institut fiziologii imeni I.P.Pavlova Akademii nauk SSSR,
Leningrad.

(AMPLIFIERS, ELECTRON-TUBE)

KOZHEVNIKOV, V.A.; SOROKO, V.I.

Appliance for auditory detection of electroencephalographic and other biological currents; encephalophone. Zhur.vys.nerv. deiat. 6 no.3: 479-481 My-Je '56. (MLRA 9:11)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii im. I.P.Pavlova AN SSSR.

(ELECTROENCEPHALOGRAPHY, apparatus and instruments,
encephalophone (Rus))

(ELECTROPHYSIOLOGY, apparatus and instruments,
encephalophone (Rus))

50K010, V.I.
KOZHEVNIKOV, V.A.; SOROKO, V.I.

Construction of differential amplifiers for the registration
of biopotentials without screening the object. Fiziol. zhur.
43 no.2:187-191 F '57 (MLRA 10:4)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta
fiziologii im. I.P. Pavlova AN SSSR, Leningrad.

ELECTROPHYSIOLOGY, appar. and instruments
differential amplifiers for registration of
biopotentials without screening of object)

KOZHEVNIKOV, V.A. & SOROKO, V.I.

Electronic apparatus for measuring alpha-rhythm variations of the
electroencephalogram produced by stimulations. Probl.fiziol.akust.
4:80-83 '59. (MIRA 13:5)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta fizi-
ologii imeni I.P. Pavlova AN SSSR, Leningrad.
(AUDIOMETRY) (ELECTROENCEPHALOGRAPHY) (ELECTRONIC INSTRUMENTS)

SOROKO, V. M.

PA 13/49T103

USSR/Medicine - Malaria
Medicine - Colitis

Mar 48

"Changes in the Capillaries of the Base of Nails in Children Suffering From Malaria or Colitis," V. M. Soroko (Children's Clinic, Mil Med Acad imeni S. M. Kirov), 1 p

"Vop Ped i Okhran Mater i Det" Vol XVI, No 3

Reports capillaroscopic observations on 53 children with malaria and 25 with colitis. Concludes that capillaropathy is not specific; its development is evidently caused by various factors. However, its dynamic study gives much valuable data. In particular, it opens the way to a better understanding of the pathogenesis of diseases. 13/49T103

DU MYUA-ZHEN' [Tu, Hsueh-hen]; ILIS, Yu.A.; SOROKO, V.M. SOROKO,
L.M.

[Setup for producing intense molecular beams by means of
a supersonic nozzle] Ustanovka dlia polucheniia intensiv-
nykh molekuliarnykh puchkov s pomoshch'iu sverkhzvukovogo
scpla. Dubna, Ob"edinennyi in-t iadernykh issl. 1963. 35 p.
(MIRA 17:7)

ACCESSION NR: AP4033099

S/0120/64/000/002/0022/0023

AUTHOR: Petrukhin, V. I.; Prokoshkin, Yu. D.; Soroko, V. M.

TITLE: Foam-polystyrene liquid-hydrogen target

SOURCE: Pribery* i tekhnika eksperimenta⁹ no. 2, 1964, 22-23

TOPIC TAGS: nuclear target, liquid hydrogen target, foam polystyrene target

ABSTRACT: A new two-chamber foam-polystyrene liquid-hydrogen-filled target is described (see Fig. 1 of the Enclosure). The liquid hydrogen is stored in a tank(3) surrounded by a liquid-nitrogen screen(5). The tank is connected with the targets (1) and (2); one of them can be placed into a beam of particles. The targets and the tank are surrounded by foam-polystyrene jackets which are cooled by the ambient evaporating hydrogen. The 13-liter nitrogen jacket(4) is made from stainless steel. Provision is made for the rapid

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ACCESSION NR: AP4033099

removal of the hydrogen from the targets (1) and (2). The hydrogen capacity is 33 liters; cooling nitrogen consumption is 6 lit/hr; time of hold of the hydrogen (ortho plus para in 3:1 ratio) is 30 hr. "We take this opportunity to thank V. Vlasov and V. N. Dmitriyevskaya for their help in preparing and testing the target." Orig. art. has: 1 figure.

ASSOCIATION: Ob'yedinenny*y institut yaderny*kh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 21 May 63

DATE ACQ: 11 May 64

ENCL: 01

SUB CODE: NP

NO REF SOV: 000

OTHER: 002

ATD PRESS: 3043

Card 2/3

ACCESSION NR: AP4033099

ENCLOSURE: 01

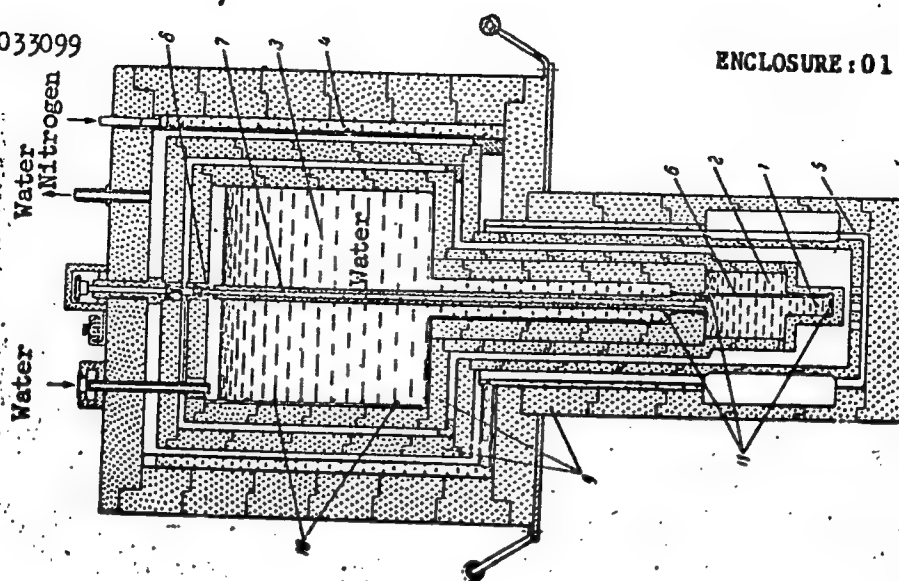


Fig. 1. New design of a foam-polystyrene liquid-hydrogen target

Card 3/3

DE SYUYE-ZHEN' [Tu Hsieh-jên]; PLIS, Yu.A.; SOROKO, V.M.; SONGKO, L.H.

Apparatus for generating intense molecular beams by means of
a supersonic nozzle. Prib. i tekhn. eksp. 9 no.6:104-106 K-D
'64. (MIRA 18:3)

1. Ob'yedinennyy institut yadernykh issledovaniy.

BERKHOFF, V.S., kandidat tekhnicheskikh nauk; KAL'NITSKIY, Ya.B., kandidat tekhnicheskikh nauk; SOROKO, V.V., gornyy inzhener.

Experimental grounds for the use of a rotary-rubble loading machine.
Gor.zhur. no.9:47-50 S '57. (MLA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Gormash.
(Ore handling) (Mining machinery)

SOROKO, V.V.

Experimental study of the use of vibration in the working parts of
loading machine with periodical action.. Izv. Sib. otd. AN SSSR no.10:
54-64 '58. (MIRA 11:12)

1. Laboratoriya transportnykh i pogruchnykh mashin instituta
"Gipronikel".

(Shoveling machines) (Vibrators)

SOROKO, V.V., inzh.

Experimental investigation of a shaker rake. Izv.vys.ucheb.
zav.; gor.zhur. no.10:90-99 '58. (MIRA 12:8)

1. Institut Gipronikel'.
(Mining machinery)

SOROKO, V.V., Cand Tech Sci -- (diss) "Study of the use of vibration^{oscillation} oscillations in the working parts of loading machines for the ore-mining industry." Len, 1959, 24 pp (Min of Higher Education USSR. Len order of Lenin and Labor Red Banner Mining Inst in G.V. Plekhanov. Chair of Mining Transportation) 130 copies.
Mimeographed (KL, 34-59, 114)

- 55 -

SOROKO, V.V., kand.tekhn.nauk; GOLOVIN, N.S., inzh.

PMGR-1 rotary disc leader. Gor. zhur. no.3:56-57 Mr '61.

(MIRA 14:3)

1. Gpronikel', Leningrad.

(Ore handling--Equipment and supplies)

SOROKO, V.V., kand.tekhn.nauk; LEZIN, N.Ya., inzh.

Small vibrating loader. Qor. zhur, no.10:66-68 0 '61.

(MIRA 15:2)

(Mining machinery)

RODIONOV, Georgiy Viktorovich, doktor tekhn.nauk; KAL'NITSKIY, Yakov Borisovich, kand.tekhn.nauk; GURKOV, Konstantin Stopanovich, kand. tekhn.nauk; KOSTYLEV, Aleksandr Dmitriyevich, kand. tekhn.nauk; MIKHIREV, Petr Aleksandrovich, kand. tekhn. nauk; PRESS, Igor' Mikhaylovich, nauchnyy sotr.; SOBOL', Arkadiy Vladimirovich, st. nauchnyy sotr.; SOROKO, Veniamin Vasil'yevich, kand. tekhn.nauk; BAZANOV, A.F., kand. tekhn. nauk, retsenzent; BULATOV, S.I., red. izd-va; SMIRNOVA, G.V., tekhn. red.

[Loading machines for loose and lump materials; design, teory, and calculation] Pogruzochnye mashiny dlia sypuchikh i kuskovykh materialov; konstruktsiia, teoriia i raschet. [By] K.S.Gurkov i dr. Moskva, Mashgiz, 1962. 286 p. (MIRA 15:12)

(Loading and unloading--Equipment and supplies)

KAL'NITSKIY, Ya.B.; KOSTYLEV, A.D.; SOROKO, V.V.; GURKOV, K.S.

Introduce vibration equipment on a broad scale. Gor. zhur.
no.12:62-63 1962. (MIRA 15:11)
(Ore handling--Equipment and supplies)
(Vibration)

MUKHLENOV, I.P.; IVANOVA, R.S.; SCROKO, V.Ye.

Effect of water vapors and iron compounds on the activity of a
vanadium catalyst in a fluidized bed. Zhur. prikl. khim. 36
no.4:730-736 Ap '63. (MIRA 16:7)

1. Leningradskiy tekhnologicheskii institut imeni L'ensoveta.
(Vanadium catalysts) (Water vapor)
(Iron compounds)

GORSHTEYN, A.Ye.; SOROKO, V.Ye.

Piezoelectric method of investigating the structure of a
fluidized bed. Izv.vys.ucheb.zav.;khim. i khim.tekh. 7 no. 1:
137-140 '64. (MIRA 17:5)

1. Leningradskiy tekhnologicheskoy institut im. Lensovetu,
kafedra obshchey khimicheskoy tekhnologii.

SOROKO, V.Ye.; MUKHOMENOV, I.P.; MIKHAILOV, M.P.

Calculating the minimum hydraulic resistance of gas distribution grids of apparatus with a fluidized bed. Izv.vys.ucheb.zav.; khim.i khim.tekh. 8 no.4:658-673 '65.

(MIRA 18:11)

L. Leningradskiy tekhnologicheskiy inatitut imeni lensoвета,
kafedra obshchey khimicheskoy tekhnologii.

SOROKO, Ya., spetsial'nyy korrespondent (Selo Ol'shany, Ol'shanskogo
rayona, Cherkasskoy oblasti).

Meteorologist of the collective farm. Nauka i pered. op. v
sel'khoz. 9 no.2:33-36 F '59. (MIRA 12:3)
(Meteorology, Agricultural) (Chaban, Ustim Nikitovich)

SOROKO, Ya. (G. Mukachevo)

Method deserving wide-scale testing. Nauka i pered.op.v sel'-
khoz. 9 no.11:72-74 N '59. (MIRA 13:3)

1. Spetsial'nyy korrespondent zhurnala "Nauka i peredovoy opyt
v khozyaystve."
(Corn(Maize)) (Plants, Space arrangement of)

SOROKO, Yan Iosifovich; LEONOVA, T.S., red.; ATROSHCHENKO, L.Ye.,
tekh. red.

[Everyday work of a zootechnician; a sketch] Budni zootekh-
nika; osherk. Moskva, Izd-vo "Znanie," 1962. 46 p. (No-
voe v zhizni, nauke, tekhnike. V Serii: Sel'skoe kho-
ziaistvo, no.17) (MIRA 15:10)
(Stock and stockbreeding)

GIMMERL'FARB, Boris Mikhaylovich, doktor geol.-miner. nauk; SOROKO,
Ya.I., red.; RAKITIN, I.T., tekhn. red.

[Fertilizing rocks] Kamni plodorodiia. Moskva, Izd-vo
"Znanie," 1963. 39 p. (Novoe v zhiāni, nauke, tekhnike.
XII Seria: Geologiya i geografiia, no.15) (MIRA 16:8)
(Fertilizing rocks)

ZHURAVLEV, Aleksandr Ivanovich, kand. biolog. nauk; VSELOVSKIY,
Vladimir Aleksandrovich; SOROKO, Ya.I., red.; ATROSHCHENKO,
L.Ye., tekhn. red.

[Bioluminescence] Zhivoe svechenie. Moskva, Izd-vo "Znanie,"
1963. 45 p. (Novoe v zhizni, nauke, tekhnike. VIII Seria:
Biologiya i meditsina, no.9) (MIRA 16:5)
(Bioluminescence)

NAPALKOV, Anatoliy Viktorovich, kand. biol. nauk; CHICHVARINA,
Nataliya Afanas'yevna; SOROKO, Ya.I., red.; NAZAROVA, A.S.,
tekh. red.

[Brain and cybernetics; cybernetic keys to the secrets of the
brain] Mozg i kibernetika; kiberneticheskie kliuchi k tainam
mozga. Moskva, Izd-vo "Znanie," 1963. 46 p. (Novoe v zhizni,
nauke, tekhnike. VIII Seriya: Biologiya i meditsina, no.11)
(MIRA 16:7)

(BRAIN) (CYBERNETICS)

BRAUN, Aleksandr Davydovich, doktor biol. nauk; SOROKO, Ya.I.,
red.; RAKITIN, I.T., tekhn. red.

[Riddles of irritability] Zagadki razdrazhimosti. Mo-
skva, Izd-vo "Znanie," 1963. 46 p. (Novoe v zhizni, nauke,
tekhnike. VIII Seria: Biologiya i meditsina, no.13)
(MIRA 16:7)

(IRRITABILITY)

PETROV, Rem Viktorovich, doktor med. nauk; SOROKO, Ya.I., red.;
NAZAROVA, A.S., tekhn. red.

[Immunology and sphinxes of the 20th century] Immunologia i
sfinksy XX veka. Moskva, Izd-vo "Znanie," 1963. 47 p.
(Novoe v zhizni, nauke, ekhnike. VIII Seria: Biologiya,
no.8) (MIRA 16:4)

(IMMUNITY)
(TRANSPLANTATION OF ORGANS, TISSUES, ETC.)

MAYSKIY, Ivan Nikolayevich, doktor med. nauk, prof.; SOROKO, Ya.I.,
red.; NAZAROVA, A.S., tekhn. red.

[Experimental genetics and medicine] Eksperimental'naya
genetika i meditsina. Moskva, Izd-vo "Znanie," 1963. 30 p.
(Novoe v zhizni, nauke, tekhnike: VIII Seriya: Biologiya i
meditsina, no.18) (MIRA 16:10)
(GENETICS) (MEDICINE, EXPERIMENTAL)

AMOSOV, Nikolay Mikhaylovich; SOROKO, Ya.I., red.; KUDRYAVTSEVA,
O.V., tekhn. red.

[Cybernetics and medicine] Kibernetika i meditsina; ras-
shirennaia stenogramma lektsii, pročitannoi v Tsentral'-
nom lektorii Vsesoiuznogo obshchestva "Znanie." Moskva,
Izd-vo "Znanie," 1963. 47 p. (Novoe v zhizni, nauke,
tekhnike. VIII Seria: Biologiya i meditsina, no. 17)
(MIRA 16:11)

1. Chlen-korrespondent AMN SSSR (for Amosov).
(INFORMATION THEORY IN BIOLOGY)

SHOFMAN, Maks Adol'fovich; SOROKO, Ya.I., red.; RAKITIN, I.T., tekhn.
red.

["Secrets" of oriental medicine]"Sekrety" vostochnoi meditsiny.
Moskva, Izd-vo "Znanie," 1963. 39 p. (Novoe v zhizni, nauke,
tekhnike. VIII Seriya: Biologiya i meditsina, no.2)

(MIRA 16:1)

1. Klinika Moskovskogo gosudarstvennogo universiteta (for Shofman).
(MEDICINE, CHINESE) (MEDICINE, HINDU)

YERSHOV, Feliks Ivanovich, kand. med. nauk; ZHDANOV, V.M., nauchnyy red.; SOROKO, Ya.I., red.; NAZAROVA, A.S., tekhn. red.

[Problem of virus and cell correlation] Problema "virus - kletka."
Pod nauchn. red. V.M.Zhdanova. Moskva, Izd-vo "Znanie," 1963.
30 p. (Novoe v zhizni, nauke, tekhnike. VIII Seriya: Biologiya i
meditsina, no.5) (MIRA 16:2)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for
Zhdanov).

(VIRUSES)

SHILLER, Natan Yefimovich; SHISHINA, Yuliya Grigor'yevna; PETROV, R.V.,
doktor biol. nauk, red.; SOROKO, Ya.I., red.; RAKITIN, I.T.,
tekhn. red.

[Barrier of incompatibility] Bar'er nesovmestimosti. Pod nauchn.
red. R.V. Petrova. Moskva, Izd-vo "Znanie," 1963. 39 p. (Novoe
v zhizni, nauke, tekhnike. VIII Seriya: Biologiya i meditsina,
no.4) (MIRA 16:2)

(TRANSPLANTATION OF ORGANS, TISSUES, ETC.)

BERNSHTEYN, Aleksandr Davidovich, doktor biol. nauk, zasl. deyatel'
nauki; SOROKO, Ya.I., red.

[Life and movement] Zhivoe dvizhenie. Moskva, Izd-vo
"Znanie," 1964. 45 p. (Novoe v zhizni, nauke, tekhnike.
VIII Seriya: Biologiya i meditsina, no.7) (MIRA 17:5)

PUTKO, Aleksandr Borisovich; SOROKO, Ya.I., red.

[Subdued virus; victory over poliomyelitis] Ukroshchen-
nyi virus; pobeda nad poliomieliitom. Moskva, Izd-vo
"Znanie," 1964. 46 p. (Novoe v zhizni, nauke, tekhnike.
VIII Seria: Biologiya i meditsina, no.9) (MIRA 17:6)

YUDAYEV, Nikolay Alekseyevich; SOROKO, Ya.I., red.

[Hormones and health; biochemistry of hormones and its
significance for practical medicine] Gormony i zdorov'e;
biokhimiia gormonov i ee znachenie dlia prakticheskoi
meditsiny. Moskva, Izd-vo "Znanie," 1964. 39 p. (Novoe
v zhizni, nauke, tekhnike. VIII Seriya: Biologiya i medi-
tsina, no. 10) (MIRA 17:6)

1. Chlen-korrespondent AMN SSSR (for Yudayev).

MOLCHANOV, Nikolay Semenovich; SPRCHAL, Ya.I., red.

[Hypotension and hypertension] Gipotoniia i gipertonii.
Moskva, Izd-vo "Znanie," 1964. 29 p. (Novce v zhizni,
nauke, tekhnike. VIII Seriya: Biologiya i meditsina, no.12)
(MIRA 17:7)

1. Deystvitel'nyy chlen AMN SSSR (for Molchanov).

CHROMOVA, Yelena Anatol'yevna, doktor biol. nauk; SOLOKO, Ya.I.,
red.

[Electrical phenomena in the body] Elektricheskie iavle-
niia v organizme. Moskva, Znanie, 1964. 30 p.
(MIRA 17:9)

PORTNOV, Foma Grigor'yevich, doktor med. nauk; NIKOLAYEV, V.R.,
red.; SOROKO, Ya.I., red.

[Aeroions and the health] Aeroiony i zdorov'e. Moskva,
Znanie, 1964. 39 p. (Novoe v zhizni, nauke, tekhnike.
VIII Seria: Biologiya i meditsina, no.22)

(MIRA 17:12)

SISAKYAN, Norayr Martirosovich, akademik; SEVERIN, Sergey Yevgen'yevich; PARIN, Vasil'y Vasil'yevich; EL'PINER, Isaak Yefimovich, doktor biol. nauk; KUZIN, Aleksandr Mikhaylovich; ISAYEV, I.B.; SOROKO, Ya.I., red.

[Biology and its allies] Biologiya i ee soizuzniki; sbornik. Moskva, Izd-vo "Znanie," 1964. 77 p. (Novoe v zhizni, nauke, tekhnike. VIII Seriya: Biologiya i meditsina, nos.17-18) (MIRA 17:10)

1. Deystvitel'nyy chlen AMN SSSR (for Severin, Parin). 2. Chlen-korrespondent AN SSSR (for Kuzin).

KHVATOV, Boris Pavlovich, doktor med. nauk, prof.; FELOROV,
Roald Mikasylovich; SOROKO, Ya.I., red.

[Embryo develops in a flask; a biological "cradle"] Za-
rodnysh razvivayetsya v kolbe; biologicheskaya "kolybel'."
Moskva, Izd-vo "Znanie," 1964. 31 p. (Novoe v zhizni,
nauka, tekhnika. VIII Seriya: Biologiya i meditsina, no.19)
(MIRA 18:1)

KHOROVETSKIY, M. [Khorovets'kyi, M.], inzh.; SOROKO, Yu., inzh.

New suggestions concerning building roofing for rural structures;
some results of a competition for an economical roofing for
rural construction. Sil'. bud. 13 no.11:19-21 N '63.
(MIRA 17:1)

SOROKO, Yu.L.

Experience in preventing the formation of longitudinal cracks in supports of overhead contact systems. Transp. stroi. 15 no.10:45 0 '65. (MIRA 18:12)

1. Nachal'nik otdela tekhnicheskogo kontrolya Darnitskogo zavoda zhelezobetonnykh konstruktsiy.

ROZENBERG, N.M., inzh.; SOROKODUMOVA, N.I., inzh.; TELESHEVSKIY, B.I.,
inzh., retsenzent; SOKOLOV, A.G., inzh., red.; MEDVEDEVA,
M.A., tekhn. red.

[Television and its use in railroad transportation] Televide-
nie i ego primeneniye na zheleznodorozhnom transporte. Moskva,
Transzheldorizdat, 1963. 186 p. (MIRA 16:10)
(Railroads--Communication systems)
(Industrial television)

SASHENKOV, Mikhail Semenovich, kand. tekhn. nauk; SOROKOLETOV, Aleksandr Fedorovich; AFONASOV, Nikifor Ivanovich. dots.; UKOLOV, Mikhail Sergeyevich, inzh. st. nauchn. sotr.; GONCHARENKO, Andrey Nikiforovich, inzh. mlad. nauchn. sotr.; KHLIUSTIKOVA, Iraida Nikol'yevna, inzh., ml. nauchn. sotr.; GOLIK, Svetlana Andreyevna, inzh.

[Specialized transportation facilities for the haulage of building materials and elements] Spetsializirovannye transportnye sredstva dlia perevozki stroitel'nykh materialov i konstruktsii. Moskva, Stroiizdat, 1964. 57 p.

(MIRA 18:5)

1. Moscow. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.
2. Rukovoditel' laboratorii transportnykh rabot otdela transportnykh, pogruzochno-razgruzochnykh i skladskikh rabot Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (for Sashenkov).
3. Glavnyy inzhener laboratorii transportnykh rabot otdela transportnykh, pogruzochno-razgruzochnykh i skladskikh rabot Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (for Sorokoletov).
4. Laboratoriya transportnykh rabot otdela transportnykh, pogruzochno-razgruzochnykh i skladskikh rabot Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (for Afonarov, Ukolov, Goncharenko, Khlyustikova).

SOROKO-NOVITSKAYA, A.A.

✓3631* Resistance of Carbon Steels to Abrasive Wear. Sopro-
ivlenie abrazivnomu iznashivaniyu uprochnitsykh stali.

*Good
metal*
(Russian.) A. A. Soroko-Novitskaya and M. M. Khrushchov.
Izvestiya akademii nauk SSSR, otdeleniye tekhnicheskikh nauk,
1955, no. 12, Dec., p. 35-47.
Laboratory testing methods for hardness and wear-resistance of
steels after various heat treatments. Effect of C content. Graphs,
tables, diagram. 8 ref.

*no
822*

SOROKO-NOVITSKAYA, A. A., Candidate of Tech Sci (diss) -- "Investigation of the effect of composition, hardness, and structure of carbon steels on their resistance to abrasive invasion". Moscow, 1959. 17 pp (Acad Sci USSR, Inst of Machine Science), 150 copies (KL, No 21, 1959, 116)

SOV/129-59-4-11/17

AUTHOR: Soroko-Novitskaya, A.A. (Engineer)
TITLE: Influence of Isothermal Treatment on the Wear Resistance of Carbon Steel (Vliyaniye izotermicheskoy obrabotki na iznosostoykost' uglercdistoy stali)
PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov, 1959, Nr 4, pp 52-53 (USSR)
ABSTRACT: The authors investigated the influence of isothermal treatment on the resistance to abrasion wear of the carbon steels U8, U10 and U12, the chemical compositions of which are entered in Table 1. Two regimes of heat-treatment were compared, namely isothermal hardening (heating to 810°C, cooling in a lead bath at 380°C), and ordinary hardening followed by tempering (heating to 810°C followed by quenching in water and tempering at 400°C). The tempering temperature was chosen so as to obtain the same hardness as was obtained after isothermal treatment. The hardness was determined on a PMT-3 instrument with a 200 g load. The obtained results confirm the favourable influence of isothermal treatment on the wear resistance of the investigated steels. The most favourable combination of mechanical properties is

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Influence of Isothermal Treatment On the Wear Resistance of Carbon Steel SOV/129-59-4-11/17

obtained in the case of isothermal treatment in media having the temperatures 250 - 380°C. Under such conditions the transformation of the austenite proceeds slowly and the generated structural stresses dissipate. In carbon steel hardened with continuous cooling micro-cracks form which are not eliminated after tempering. After isothermal treatment the steel has no such micro-cracks and therefore isothermal treatment has a favourable influence on the resistance to abrasive wear of the metal.

Card 2/2

There are 2 tables and 1 Soviet reference.

SOROKO-NOVITSKAYA, A.A.

Wear resistance of carbon steels having various structures.
Tren.i izn.mash. no.13:5-18 '59. (MIRA 12:10)
(Steel--Testing)

L 10241-66 EWT(d)/FBD/EWT(1)/REC(k)-2/EPF(n)-2/I/ENP(k)/EWA(m)-2/EWA(h) SCTP/LJP(c)

ACC NR: AP5028275 WG/WW/AT SOURCE CODE: UR/0020/65/165/002/0303/0304

AUTHOR: Kurbatov, L. N.; Kabanov, A. N.; Sigriyanskiy, V. V.; Mashchenko, V. Ye.;
Mochalkin, N. N.; Sharin, A. I.; Soroko-Novitskiy, N. V.

ORG: none

TITLE: Generation of coherent radiation in GaAs samples excited by electrons

SOURCE: AN SSSR. Doklady, v. 165, no. 2, 1965, 303-304

TOPIC TAGS: laser, semiconductor laser, electron beam, gallium arsenide,
crystal lattice, electron

ABSTRACT: Laser action at 77K and at room temperature is reported in both n- and p-type GaAs excited with a beam of electrons. The Fabry-Perot cavity was prepared by cleaving in the (110) plane. The resonator mirror surfaces were separated by a distance of 50-60 μ . An electron beam device supplied electrons with energies up to 60 kev. The repetition rate and the pulse duration were 50-200 pulses per second and 9×10^{-8} sec, respectively. The maximum beam current at a beam diameter of 60-70 μ was 17 mamp. The electron beam was normal to the polished surface of the sample. The light was emitted from the faces normal to the polished faces. The threshold current densities were different for different samples and varied between 70 and 150 amp/cm². Since the effective mass of the electron and the width of the forbidden gap in GaAs are larger than in InSb and InAs (two of the other semiconductor lasers) and the lifetime of the electrons is very short, population inversion in

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UDC: 537.311.33

10241-66

ACC NR: AP5028275

GaAs should occur at a temperature of the electron gas, equal to the Debye temperature ($\theta_D = 410K$) and not the lattice temperature. Therefore, in the range of lattice temperatures between 77—300K, the threshold current should depend weakly on the temperature. The weak temperature dependence of the threshold current for laser action in GaAs was confirmed experimentally. Orig. art. has: 2 figures. [CS]

SUB CODE: 20 / SUBM DATE: 14Jan65/ ORIG REF: 003/ OTH REF: 004/ ATD PRESS:

4161

Card

2/2

SOROKO-ROSINSKIY, K.V.

GRIDNEV, N.I.; VAYNER, L.A., redaktor; SOROKO-ROSINSKIY, K.V., redaktor;
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daktor

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Generation of coherent radiation in specimens of gallium
arsenide following electronic excitation. Dokl. AN SSSR 165
no.2:303-304 N '65. (MIRA 18:11)

1. Submitted March 15, 1965.

SCROKO ADV. TSKH T.V.D.
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Dinamika protsessa sgoraniia i vliianie ego na moshchnost' i ekonomichnost' dvigatel'ia. Moskva, Mashgiz, 1946. 175 p., diags.

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Title tr.: Dynamics of combustion process and its effect on the power and efficiency of the engine.

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SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

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SOROKO-NOVITSKIY, V.I., doktor tekhn. nauk; PANKRATOV, G.P., kand. tekhn.
nauk.

Effect of the engine-head material on octane requirements of fuel.
Avt. prom. no.1:25-27 Ja '58. (MIRA 11:2)

1. Belorusskiy sovnarkhoz (for Soroko-Novitskiy). 2. VZIM (for
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Possibility of producing bone tissue in the eye under experimental conditions [with summary in English]. Arkh.pat. 19 no.6:36-42 '57.
(MLRA 10:10)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.V.Sipovskiy)
Gosudarstvennogo ordena Lenina instituta usovershenstvovaniya
vrachey imeni S.M.Kirova (dir. - prof. N.I.Blinov) i iz Leningradskoy
gorodskoy glaznoy bol'nitsy (glavnyy vrach - prof. B.P.Kalashnikov)

(OSSIFICATION,

induction in eye (Rus))

(EYE, pathology,

ossification, induced (Rus))

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1. Iz Leningradskoy gorodskoy glaznoy bol'nitsy (gl. vrach - M.Ye.
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(EYE, wds. & inj.

causing intraocular ossification (Rus))

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KARPOV, A.A., inzh.; KROLENKO, N.A., inzh.; Prinsipali uchastiye:
ALIMOV, B.V.; LEONT'YEV, A.I.; BOLOBORODOV, N.M.; KARAGANOV, G.G.;
GUR'YANOV, V.N.; OSOKIN, G.F.; KAYZER, V.G.; SOROKOLETOV, A.M.;
ZLOBIN, V.K.; VIKTOROVA, T.Ye.; SEMENOV, V.A.; VODENNIKOV, V.F.;
SANAYEV, I.K.

Operating a four-zone holding furnace on natural gas with auto-
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CHEREpanova, I.V.; DAVYDOVA, M.I.; SOROKOLETOVA, R.I.;
MIKHEYEVA, L.V.; ~~SEYANAGET~~, V.G.; VOLKOVA, L.N.; SUMAROKOV, V.P.,
kand.tekhn. nauk, red.; KUZNETSOV, G.A., red.; ZAYTSEVA, L.A.,
tekhn. red.

[Technology of the production of wood chemicals; a manual for
foremen, technicians, and engineers] Tekhnologiya proizvod-
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noi promyshl. i khidozh. promyslov RSFSR, 1961. 383 p.

(MIRA 15:3)

(Wood—Chemistry)

USSR / Plant Physiology. Photosynthesis.

I

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34231

Author : Shatilov, F. V.; Sus, N. N.; Sorokona, Ye. M.
Inst : Saratov Agricultural Institute
Title : The Course of Grain Ripening and Some Aspects of Photosynthesis in Corn under Various Conditions of Water Supply.

Orig Pub : Tr. Saratovsk. S.-kh. in-ta, 1957, 10, 337-347.

Abstract : Denseness of plant standing in a nest was studied with and without irrigation in relation to the course of grain ripening of corn of the North Dakota variety in connection with its photosynthetic activity. The denseness of corn standing in a nest did not affect the ripening of grain, nor the chlorophyll content in the leaves. During the ripening, an increase of the absolute weight of grain was observed; the weight increase of the grain - according to

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USSR / Plant Physiology. Photosynthesis.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001652520005-5"

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34231

the length of the cob from top to base - was also ascertained; with irrigation, the ripening proceeded faster and a decrease of absolute weight of grain was observed. The intensity of photosynthesis and the accumulation of chlorophyll - under conditions of irrigation - increased. The conclusion is made that ripening of corn grain is related to the accumulation of chlorophyll in the leaves and to the intensity of photosynthesis. -- S. N. Gorel-kina.

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(Railroads--Electronic equipment)
(Electronic measurements)

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SOROKOPUD, M.

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SOROKOTYAGA, L. (Zaporozhskaya obl.); DOLGANOV, K. (g.Korosten',
USSR); MIKEROV, B. (g.Yaroslavl')

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2. Obshchestvennyye instruktory Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu Leningradskogo elektrotekhnicheskogo instituta im. V.I.Ul'yanova (Lenina) (for Grigorenko, Merkov, Smirnov).
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